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The Autobiographical *Shoulder* of Ernest Amory Codman: Crafting Medical Meaning in the Twentieth Century

CAITJAN GAINY

SUMMARY: This essay offers a reconsideration of the historical significance of Ernest Amory Codman's autobiographical preface to his 1934 text *The Shoulder, Rupture of the Supraspinatus Tendon and Other Lesions on or about the Subacromial Bursa* and its reception, in its own time and at the end of the twentieth century. It concentrates on the aesthetics of identity and the ways in which these are woven into the political, professional, and cultural contexts of these two periods. It argues finally that Codman's style of life writing, both in the autobiography and throughout his texts, served as an important historical actor that more generally demonstrates the possibilities in approaching the history of medicine from aesthetic angles. In this way, it also calls for a tabling of the more canonical concerns about the American medical profession in the twentieth century in order to focus more empirically on questions concerning the development of medical meaning more broadly conceived.

KEYWORDS: Ernest Amory Codman, failure, medical aesthetics, professionalization, outcome measurement, evidence-based medicine, autobiography

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In 1989, Avedis Donabedian, a leading authority in the burgeoning area of quality assessment practices in medicine, held a séance of sorts in the pages of the health policy journal *Milbank Quarterly*. He began,

I intend to summon from a shadowy past someone who should have been recognized always as a towering figure in the history of our field. It is Ernest Amory Codman whom I invoke. . . . I hope to celebrate the man, making amends, in my small way, for the neglect he has so long unjustly suffered.¹

This was not an exceptional occasion. Since the late 1960s, the early twentieth-century surgeon Ernest Amory Codman had been frequently called upon in medical quality assessment literature.² Echoing the desire to rescue Codman from the ungrateful past and apply his spirit to the urgent needs of the medical present, appeals to the Boston reformer rang from the pages of scholarly and professional journals across the nation.³

The Codman phenomenon had much to do with his “End Result System,” a medical efficiency practice of outcome measurement he developed in the opening years of the twentieth century and publicly proposed around 1910, and which advocates of quality assessment from the 1960s onward saw as the prototype for their own attempts at reform. But it seemed to be inspired equally, if not more, by the man himself, a “towering figure,” as the opening tribute put it, in medicine’s story. His admirers christened Codman a prophet, a visionary figure whose system of outcome measurement and sense of rightness had pitted him against an early-century process of medical professionalization that placed medical authority and power before good, effective, quality practice. For everything that he represented, his colleagues had rejected him, a

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rejection taken by his late-century devotees as emblematic of a systemic professional hubris that harked back to the Progressive period but would not be widely acknowledged or addressed until many decades and scandals later.

Nearly all of this heroic story would have been very familiar to Codman's friends and colleagues. Indeed, it was a narrative that Codman himself repeated in much of his outcome measurement writing, though nowhere more dramatically than his 1934 tour de force *The Shoulder, Rupture of the Supraspinatus Tendon and Other Lesions in or about the Subacromial Bursa*.⁴ Comprising three parts, with the second being a study of the anatomy, diagnosis, and care of the shoulder, Codman's text included an autobiographical preface and a polemical epilogue that elevated the monograph from clinical text into what Codman called a "literary sandwich" (the study of the shoulder was, he said, "the meaty middle").⁵ It was in his preface where Codman regaled his readers with the story echoed by reformers decades later—the fateful epic of one man's courage in a losing battle against professional norms, contemptuous contemporaries, and ostracism, with only his sense of rightness and the hope of future vindication to give him strength. "Honors, except those I have thrust on myself," he wrote, "are conspicuously absent on my chart, but I am able to enjoy the hypothesis that I may receive some from a more receptive generation."⁶

Such pronouncements notwithstanding, the way Codman was remembered and celebrated was not inevitable; reformers later in the century had other narrative options. They might have looked, for example, to the American College of Surgeons (ACS), to which Codman contributed and whose record as a body of efficiency reform began in this

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era and continued throughout the years that separated Codman from his resurrection. This narrative would have had an entirely different trajectory, one that celebrated Codman's End Result System as an early and important contributor to mainstream standardizing efforts.⁷

And there were other characters that late-century commentators could have called upon in place of Codman. Among their number were Codman's colleague and fellow reformer Richard Cabot, the neurosurgeon and one-time Codman collaborator Harvey Cushing, industrial efficiency expert Frank Gilbreth, well-known obstetrician Robert Dickinson, and perhaps most famous of all, the brothers Mayo, whom Codman had grudgingly but admiringly described as having "monopolized Clinical Truth" and made of Rochester, Minnesota, a medical mecca.⁸ Then there was the influential *Modern Hospital*, a journal dedicated to medical efficiency from its inception. Codman had something these others did not, however—a particular set of personal characteristics and a peculiar brand of life writing that found a fitting context both in his time and half a century later.

Building on Susan Reverby's insightful and now classic 1981 article on Codman, along with Christopher Crenner's more recent discussion, both of which examined the complex relationships between profession building and efficiency reform that contextualize Codman's story,⁹ this essay explores the ways in which Codman's literary self-fashioning circulated across the century. This crosses into the terrain of (auto)biography,¹⁰ but unlike biographical work on Codman (the best known of which is William Mallon's meticulously detailed portrait),¹¹ this work examines how Codman

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created his own identity, such that he was able to position himself in such different medical contexts. And in this way, we will see a refracted glimpse of the shape of medical identities and their meanings at two different moments of efficiency reform.

Though a close reading of Codman's autobiographical stylings may be regarded in general as a useful addition to the genre of medical autobiography in the early-century period,¹² a fresh examination of the work may also help us improve some new tools of historical approach. Among these is an aesthetic lens. Though *The Shoulder* has survived as an important addition to the medical canon, on close inspection we will see how it is also an ironic recast of the details of Codman's own life, a deployment of the autobiographical form to juxtapose two "realities"—one that colleagues and readers at the time of its publication would have experienced, and another that he crafts for his autobiography—for his own political ends. The general theme Codman adopts in this retelling is one of professional failure, but though Codman's autobiography is preoccupied with the futility of his life (the same futility echoed by late-century commentators), its details do not conform to the details of Codman's life as they emerge out of the archive. Reading Codman's own autobiographical accounting of his life and work alongside the published and archival sources thus produces strange distortions and artifacts that beg further attention.

Furthermore, there are dueling realities within the preface itself. Even as Codman's commentary stridently broadcasts his heroic failings—all documentation of his "sense of isolation" from his colleagues for his rejection of their "irrational" views and his lifelong "suspicion . . . of being peculiar"¹³—the details he offers resist a reading of either his

life or his End Result System as failure. In this way, Codman's own writing and the commentary of his contemporaries on his work offer a curious gloss on his supposed failure of a life, in some cases by disputing it with an explicit inventory of his many successes, in others by pointing toward a much more complex set of circumstances that governed the uptake of Codman's famous system.

If, as this essay argues in its first sections, Codman's autobiographical preface offers insight into the political ramifications of Codman's play with his own identity in his own time, then the reading of Codman's life at century's end, in which the significance of Codman came to rest on a straight reading of Codman as precisely the failure he describes himself to be, must also be brought into new focus. This tension is taking up in the second part of this essay. These narratives almost universally offered a portrait of Codman as a reformer rejected because of the threat he posed to professional authority. That these accounts of Codman's ostracism and professional failures so closely tracked onto Codman's autobiography clarifies the usefulness and endurance of his trope of the ostracized, outcast, failed self.¹⁴ It also has something to tell us about the pressures of a late-century medical moment that guided commentators away from critical considerations of Codman's constructions of his life and toward a view of this life as he had crafted it along one level alone. In their preoccupation with Codman's autobiographical details, late-century commentators unintentionally revealed how central the aesthetics of representation really are to medicine's construction. In exploring the multiple layers of meaning in both Codman's writing and renaissance, then, we follow the complex warp and weft of memory, politics, and aesthetics that make up the historical

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fabric of American medicine.¹⁵

The Shoulder

For a “biographic” text written to describe the “life he [had] led,” Codman’s preface to *The Shoulder* stands as a peculiar example of life writing. Not only does it take the form of a preface to a medical treatise, it also focuses narratively on a very short period of time, and on a very particular set of incidents that by and large had little to do specifically with Codman’s work on the shoulder. After briefly noting the genesis of Codman’s interest in the shoulder, the text abruptly states that it will not in fact cover much more in the way of biographic detail. For this, readers are directed to an accompanying chart. “Necessity for economy,” Codman writes, had forced him “to reduce [his] life history” to that form.¹⁶ (See Figure 1.)

After Codman’s life is thus set aside, his preface informs the reader that this biography would occupy itself primarily with his system of efficiency reform, that “great and still unsuccessful interest of [his] life,” the End Result System.¹⁷ Its foundational idea is “merely the common-sense notion that every hospital should follow every patient it treats, long enough to determine whether or not the treatment has been successful, and then to inquire ‘if not, why not?’ with a view to preventing similar failures in future.”¹⁸ This definition later would become the most widely quoted phrase of Codman’s *The Shoulder*, since it narrated so neatly the characteristics of both Codman and his system that would seem most critical to his late-century commentators.¹⁹

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What follows in the preface is the story of a man and an idea. Though it covers a relatively short period of Codman's career, it is chronologically vague, even disordered—a quality that late-century commentators would unintentionally make much use of.²⁰ Beginning in the summer of 1910, the season his end results “monomania” began,²¹ Codman's tale primarily details a series of events over the next seven years, ending when he left his work in Boston to aid in the aftermath of the massive explosion of a French munitions ship in Halifax Harbor in 1917. This period was, according to Codman, an “unsuccessful” time, one “over which I have toiled harder and suppressed more regrets, than over any other star-gazing period of my career.”²² And though this periodization represents just a fraction of Codman's life and work, Codman assures the reader that it is emblematic of the futility of his reforming mission. Certainly, it was remembered and repeated as such later in the century.²³

One major moment in the narrative is Codman's departure from the Massachusetts General Hospital (MGH) in 1914. Codman had worked there for fifteen years, rising from assistant surgeon—a post that he had acquired, as he explains in another text, “through family position, acquaintances, well-wishers on the Staff and Board of Trustees”—to a senior member of staff.²⁴ As Codman describes it, he had received his position through nepotism and kept it because of the seniority system then in place.²⁵ Now, after years of working without satisfactory results within the hospital's system to reform it, he was resigning as part of a demonstration against a tradition he considered antithetical, for its privileging of time served over results attained, to his End Result System. To drive home his point, he then immediately reapplied for the prestigious

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position of Surgeon-in-Chief. In the words of the preface, upon hearing that his resignation had been accepted, Codman

wrote again, asking to be appointed Surgeon-in-Chief on the ground that the results of my treatment of patients at their hospital during the last ten years had been better than those of other surgeons. I had tabulated my results in case they should ask to see them, but as no one had ever inquired into the results of other surgeons, there was of course nothing with which to compare mine. . . . Naturally, my letter was ignored, and I was not appointed Surgeon-in-Chief.²⁶

Codman points to this instance as evidence of the futility of his ventures, but this gesture was more like failure with an asterisk. In spite of Codman's performative declaration of his lack of success, despite indeed his declaration that his "efforts on every interest have been largely futile,"²⁷ and that he had "always been thinking, or saying, one thing or another, with which other doctors did not agree,"²⁸ he notes in the preface that "it was not long before the seniority system was dropped, and a portion of [MGH's] budget became devoted to a Follow-up System."²⁹ And though Codman had railed against the MGH in the outcome reporting of his own hospital, which he had opened in 1911 (and thus while still employed at MGH) precisely in order to demonstrate how an end result hospital could operate,³⁰ it was only a few years after this resignation before the hospital rehired Codman to produce his famous Registry of Bone Sarcoma, which was finally published in 1925. In fact, as the preface notes, by 1917, when Codman left for Halifax (and closed his hospital for good), his colleagues at MGH were coming around to his side, the "follow-up system and the special assignment policy," which assigned cases based on

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merit and particular expertise, he had put in place at MGH “were flourishing.”³¹ Indeed, according to Codman, far from failing, all of his ventures were actually on the brink of success in this period. As he himself tells it in this passage, it was not his colleagues or his eccentricity but the war that interrupted this progress toward reform.

Despite this evidence, Codman’s self-proclaimed failure to convince both the medical establishment and a public that outcomes mattered seemed to be compounded in another key moment he narrates, a moment that has followed Codman throughout the literature. It was his dramatic unveiling, as chairman at a 1915 meeting of the Suffolk District Medical Society, of an eight-foot-long cartoon illustrating his views about the problems in medicine that his End Result System would correct. (See Figure 2.)

This monumental work of art captured in caricature and metaphor the conspiracy of hospital trustees, physicians, surgeons, the Harvard Medical School, and public that worked in concert to shield medicine from the accountability that his End Result System would bring. Produced on commission by Philip Hale, a local artist and Codman’s friend, the cartoon featured at its center the “Back Bay Golden Goose-Ostrich,” its small head buried in a “hill of humbug,” and its hip emblazoned with the tattoo “Back Bay.” This was a representation of one Boston’s wealthiest neighborhoods, whose citizenry—all potential patients and benefactors of the MGH—Codman accused of ignoring the importance of accountable medical practice even as they continued to send its wealth (here in the form of golden eggs) to “humbug” physicians. To the fowl’s right, the MGH Board of Trustees sat in front of the Harvard Medical School debating whether telling the truth to patients would halt the steady slow of funds, while in the far background,

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witnessing the whole affair, Harvard president Abbott Lawrence Lowell wondered to himself if clinical truth was “incompatible with medical science.” “Could my clinical professors make a living without humbug?” his caricature mused.³²

The reception of the cartoon among those present, which included the mayor of Boston, was reportedly poor. Codman had to resign his chairmanship of the Medical Society, but his description of the social and professional fallout he offers in his preface is again moderated:

My wife and friends had to explain the whole matter daily to other friends, and everybody had to say that what I was after was all right, but my *methods* were abominable. As nobody else was doing anything about what all admitted was true and important, I had no methods to compare with mine, which did not seem to me either dishonorable or cruel to any one in particular.³³

Thus again, Codman’s rejection came with no small measure of mitigation. In the main, the criticism that followed the unveiling was indeed clearly leveled at his methods, but not, notably, at the truth or importance of his goals, which many of his colleagues vocally supported. This was reflected in the letters he received after the event, some quite harsh in tone. As one disappointed colleague wrote, “After having quarreled with the trustees of the Massachusetts General Hospital the wretched appearance you made with your cartoon at the medical meeting was enough to break your standing with the medical profession, unless one was charitable enough to think you mentally deranged.”³⁴ He then, however, signed off, “hoping you may see things in a new light, even at the age of forty-seven, and become a true reformer in hospital management is the wish of one

who has known you since you began your career as a surgeon.”³⁵

Others were more sympathetic. Richard Cabot, a colleague and (at the time) friend of Codman’s, offered his support by writing, “The incident illustrates the shade of truth in [George] Bernard Shaw’s remark that the medical profession (like every other profession) is a conspiracy against the public.”³⁶ Indeed, to Cabot, it was Codman’s censure by the Suffolk Medical Society—not his unveiling of the cartoon—that was the more pressing problem. He was himself invested in reforming projects that would produce greater transparency and accountability to the public, weakening the professional conspiracy that Shaw and others feared.³⁷ This is all the more telling, since Cabot suffered sometimes scathing public criticism from Codman explicitly because he held a high position at the MGH, which Codman viewed as a form of professional entrenchment that was incompatible with real reform. This was good enough reason to subject him personally to a kind of “harmless ridicule,” intended to draw out the essential antiprogressive nature of the medical profession more generally.³⁸ (Noted Codman, in defense of the application of this tactic to Cabot and others, “I doubt if their feelings were hurt or even their self-esteem.”)³⁹

The medical community seems to have quickly recovered from the cartoon’s affront. When the August 1917 issue of the *Boston Medical and Surgical Journal* (the forerunner to the prestigious *New England Journal of Medicine*) published papers and discussions of a meeting held by the newly formed Section of Hospital Administration at the Massachusetts Medical Society, it included a paper of Codman’s on hospital morbidity reports, and gave Codman credit not just for the meeting but for the new

society section itself.⁴⁰ Its chairman noted as instrumental to the sections' founding the work he had done in previous years in the Clinical Surgical Society meetings to bring "to our minds, perhaps more forcibly than ever before, the necessity of doing something to find out whether our hospitals are really doing the work they are intended to do, that we think they are doing."⁴¹ Far from being a career-ending disaster, as the preface describes it, Codman's cartoon had largely achieved for Codman's cause exactly the results he had hoped it would.⁴²

Progress like this, as well as the not insignificant number of accomplished surgeons willing to work under Codman's conditions at the Codman Hospital, belie Codman's autobiographical characterization of himself as a lone outsider whose reforms were futile and professional status in crisis. It also suggests that at the least, Codman had a small but powerful band of colleagues willing to be in his corner. Codman's own assertion that "everybody," as he put it in the above passage, agreed that he was right in his aims (if misguided in his methods) indicates that his corner might in fact have been quite crowded. Indeed, letters from his archive indicate that Codman's ideas had found purchase at the time of the preface's appearance in 1934, and not only at the MGH. As one correspondent wrote in a letter to the author upon reading his preface, "I think you are a little impatient, your splendid End Result Idea has been generally accepted and acclaimed and is practiced to a greater degree than perhaps you are aware of."⁴³

Notably, even Codman's own account in his autobiographical preface, in addition to its protestations that the End Result System was unsuccessful, contradicts his strong rhetoric of failure with clear description of success extending beyond the Boston

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medical establishment: “In the case of the Woman’s Hospital in New York, almost everything that I recommended has been adopted, and I am glad to say improved on, in many details. Several other New York hospitals also accepted the suggestions to some extent.”⁴⁴ His message was also moving upward. On the subject of one of the era’s most powerful bodies, the ACS, the preface observes another, albeit more tacit, victory for his End Result System. “Whatever historians may ultimately conclude, I am personally satisfied that the End Result Idea took an important part in the founding of the College.”⁴⁵

The contradictions in the narrative pose questions about why Codman chose such an absolute and inflexible rendering of himself—as living a life of futility, on the outskirts of the medical profession—in the first place, particularly since, sotto voce, the attendant details always seemed to contradict his self-portrayal. Indeed, in spite of his gloomy self-assessment, nearly every venture described in the autobiography simultaneously offers a contrasting indication of success. Peppered throughout the preface are small celebrations of his contributions to medicine, with assurances to the reader that these contributions were not just useful but vital. Even Codman’s cartoon had achieved its own measure of success by the time of the writing of the preface. As Codman himself describes, the cartoon had been “mounted on cloth, arranged like a folding map, bound and placed for safe keeping in the Boston Medical Library.”⁴⁶ Still dedicated, however, to his outsider narrative, Codman considered the cartoon’s preservation, along with the willingness of MGH to have him back, “remarkable,” a characterization possible only in a text so rhetorically preoccupied with creating

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Codman's story as one of professional disaster that these sorts of events must be positioned as unexpected surprises.

To explain the autobiography's tone, one might suspect that Codman had suffered some sort of fall from grace between the period the preface describes and his publication of *The Shoulder*. There is, however, ample evidence to suggest that Codman was by 1934, the date of the book's publication, respected, even beloved.⁴⁷ With a sense of appreciation, a reviewer of *The Shoulder* concluded, "If we had to answer the question, 'What is Dr. Codman's book like?' in one sentence, the reply would be, 'It is just like Dr. Codman,' which is high praise."⁴⁸ And when Codman died eight years later, his reputation seemed to remain in good standing. In addition to summarizing Codman's numerous historical contributions to medicine, an obituary in the *New England Journal of Medicine* warmly described Codman as "affectionate, thoughtful, fair, a good companion . . . remarkably free from pretense and affectation, uncompromising" and as possessing an "attractive whimsical streak."⁴⁹ It continued, "much of his purpose was accomplished. . . . An end-result system was created not only at [the MGH] but over the whole country, an epoch-making achievement: all patients must be followed, for years if necessary; everyone must explain his bad results."⁵⁰

This was hardly the rabble-rousing Codman of the autobiography, whose pursuit of the End Result System was so single-minded and unpopular that he feared for his own sanity.⁵¹ Nor indeed was this the Codman for whom late-century historians would select words like "difficult"⁵² and "iconoclastic"⁵³ in partial explanation for the failure of his system. Clearly, if these obituary accounts are accurate, Codman's End Result System

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had not been abandoned. Yet this was the image and story that he creates in his preface. This draws attention to the curious ambivalences of Codman's life story, to the explicit framing of that life as that of a futile yet simultaneously successful reformer. It also reveals that the personal descriptions that fill Codman's professional work are in large part a strategic framing of his self, crafted and deployed to achieve a desired affect.

In many ways, the intended circulation of *The Shoulder* accounts for the curious form of Codman's autobiography. In his epilogue, where he specifically addresses the fellows of the ACS, Codman notes that he crafted his preface to rankle surgeons into reorienting themselves in relation to both himself and his End Result System. Indeed, extratextually, in a circular sent around to the ACS fellows, Codman had already indicated that there was actually little reason for them to read very much if any of the monograph on the shoulder. He explained that in order to "attain some of [the book's] main purpose," they should "read the preface and epilogue attentively" but only "as much of the shoulder part that may be of interest."⁵⁴ Though the actual study of the shoulder, the book's "meat layer," stood on its own as an important contribution to orthopedics and anatomy, Codman did not see this study as the crucial ingredient for his "literary sandwich." Rather, it was merely the right sort of joint to connect his readers to his ideas. Or, as Codman puts it in the epilogue, shifting metaphors away from sandwiches to hot-air balloons: "The portion of the book on the shoulder is the balloon, but the really important part of the expedition is in the basket below, which contains the preface and epilogue."⁵⁵ (See Figure 3.) Codman further clarifies that with such things in the basket, no publisher would have published *The Shoulder*. And so it was explicitly to maintain

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these parts that Codman went to great lengths to have the text printed himself, privately and at his own expense.⁵⁶

The epilogue goes on to predict that the ACS fellows would find his end result message as well as his methods—of placing this message around his study of the shoulder—distasteful. But, he tells them almost triumphantly, there was nothing that they could do about it. His hot-air balloon, and thus also the basket beneath, could not be shot down from the sky. Indeed, the only thing that could bring it down would be a better book on the shoulder, and that, Codman says confidently, will “take some time.” Until then, his balloon would remain in circulation, carrying its “unpopular load,” “invulnerable” to whatever kind of “missile” the ACS fellows might find to hurl at it and spreading its message of end results far and wide—wherever the wind might take it.⁵⁷

This clarifies much both about the text of *The Shoulder* and its reception in its own time. And by and large, it met with success. As Frederic Washburn, another of Codman’s frequent targets for ridicule at the MGH,⁵⁸ put it in his history of MGH, “as far as the Massachusetts General Hospital was concerned Dr. Codman was not allowed to remain a martyr.”⁵⁹

This is not a radical reinterpretation of Codman’s work. Indeed, it follows the rather lengthy reading directions that open the preface,⁶⁰ which make clear that the text has more in common with the literature of irony than conventional medical autobiography.⁶¹ In keeping with this genre, Codman offers fair warning to his readership that something different is in the works: “Things which have become conventionalized,” he writes, “like prefaces, funeral services, wedding vows, and legal preambles are to be suspected of

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evading responsibility.”⁶² He goes even further, remarking that his work is intended to raise his readers’ “defense-reaction” by use of ridicule and hyperbole, since this method would ultimately yield results more quickly than a “presentation of facts.”⁶³ Quite explicitly, then, Codman’s preface is intended to stand as something more than a recitation of a medical life story. Instead, the text tacitly encourages us to understand it on its own terms, perhaps as its own hyperbolic act, much like an eight-foot cartoon, only this time accompanying a classic medical treatise on the shoulder.

This rereading of Codman’s life and work highlights the peculiarities of Codman’s reception later in the century. For though by and large late-century commentators at this time read more widely and contextualized Codman more diligently than Codman himself did in his own writing, their placement of Codman as a historical figure still privileged his personal and professional failure, set around events familiar to readers of the autobiography in the 1910 to 1917 period. Once this ironic reading of Codman’s own work and of the related sources unsettles the easy reading of Codman’s reforms as having dramatically failed in its own time, the narratives of the late twentieth century take on a new significance.

Codman: The Renaissance

By the late 1960s and early 1970s, American medicine was in crisis. Over the past decade, the public had witnessed a steady stream of news stories exposing a medical establishment to protect itself rather than its patients: the American Medical

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Association's campaign against Medicare in the early 1960s, Henry Beecher's 1966 whistle-blowing article on the appalling state of biomedical research ethics, and the 1973 investigatory hearings on the Tuskegee Syphilis Study are but a few of the better known examples. In some ways, these accounts of medicine were a natural consequence of the well-known critiques of authority that had emerged in the American public and academic spheres more generally in this era. And if there was ever an institution that lent itself to this kind of critique, it was American medicine, appearing as it did to public and critics alike a largely cohesive force driven by a structural thirst for power.

In academia, "anti-psychiatrists" like Thomas Szasz and R. D. Laing had joined Ivan Illich, Thomas McKeown, and others in a powerful critique of medicine's historical trajectory, showing it to be less a branch of inexorably progressing science that had meaningfully improved health, and more like the product of a series of professionalizing moments designed to medicalize the American public.⁶⁴ Eliot Freidson summed up what was perhaps the most widely accepted view of medicine's historical trajectory in his enormously influential 1970 *Professions of Medicine*, writing that "a medical system based on professional autonomy" had increased scientific knowledge, but had also "impeded the improvement of the social modes of applying that knowledge," and encouraged the profession to be blind to its own shortcomings.⁶⁵ It seemed increasingly apparent that medicine's professional authority had not been acquired and exercised in the public interest,⁶⁶ and that the result had been an overly authoritative medical establishment of questionable effectiveness that threatened to dehumanize all those who sought medical treatment.⁶⁷

Medicine's critics gave the impression of a disinterested, authority-driven, but largely autonomous enterprise that had, some thought, lost sight of its humanity in the wake of technical and scientific advance, demonstrating in the process how dangerous authority and professional autonomy could be. The concurrent and consequential emphasis on rights that emerged in the wake of these events focused around the intervention of others—from law, philosophy, religion, and the humanities—into medicine to counter and correct medicine's overly authoritative cultural status.⁶⁸ Indeed, the new social historians of medicine felt a pronounced sense of mission as well, an activist sense that historians too would be a part of medicine's reform. One tenet of this was to examine medicine's history to find the "roots of medical dehumanisation" in order to better understand the contemporary medical moment.⁶⁹

Under different circumstances, Codman might have posed yet another example of just such a dehumanizing root, due to his desire to impose an "industrial model"⁷⁰ that carried with it by the 1970s a standard set of dehumanizing implications.⁷¹ But it is perhaps not surprising that given the antiprofessional climate, it was Codman's clashes with authority that brought him the greatest attention. Reverby's 1981 incisive analysis of Codman is particularly responsive to this strand. Tracing the potential parallels between Codman and the contemporary moment, it documents his losing battle with fellow physicians characterized by Codman's own assertive reforming character in the face of the profession's unified resistance. "[E]ven if Codman had been a less acerbic character, more willing to compromise," it notes, "it is perhaps less speculative to assume that the end of the story would have been the same, given the ideological ascendancy of

physicians at the time.”⁷²

Such readings of Codman’s story brought him new life. The return of his self-constructed, colorful persona fulfilled the need to recast medicine as humanistic and therapeutic, and his emphasis on outcomes and the transparency they promised demonstrated to critics that the medical establishment would preempt any future bad acts. Having returned to print in 1965, thanks (as Codman had predicted) to the still-exceptional study of the shoulder,⁷³ Codman’s preface seemed to describe a foundational moment when a man and his proposed outcome measurement system of reform had challenged medicine’s rising professional authority and been defeated. In returning to that touchstone, and claiming it for themselves, commentators at the end of the century could show that medicine was culturally mature and clinically advanced enough to embrace the kind of outcome measurement Codman had called for.

Another critical opportunity provided by Codman’s text was that “the recalcitrance and self-interest of his contemporaries” that had prevented Codman’s system from being taken up could now be corrected.⁷⁴ Quoting from Codman’s text and appealing to his spirit thus came to serve as a performative expression of remorse for the policies of the previous, ethically myopic generation. In Codman, reformers could mediate between two moments across the century, one marked as the beginning of a profession gone wrong, the other now marked (via this return to Codman) as the end of that era. Indeed, in the years that mediated his work and the present, Codman’s commentators asserted that Codman had shamefully been forgotten, consumed by a “shadowy past.”⁷⁵ After having been “unappreciated during his career” and “largely uncelebrated,”⁷⁶ his ideas “were

either forgotten, suppressed or in their critical dimensions abandoned”⁷⁷ in the years following the resignation and cartoon incidents.⁷⁸ The fact that Codman’s name had disappeared from accounts of hospital organization in the interim—unlike, for example, that of perhaps the most obvious and lasting beacons of medical efficiency reform, the Mayo brothers—was, under these circumstances, auspicious. It historically accounted for the imperfect state of the medical system at the end of the twentieth century, and also offered a fresh symbol and vocabulary for reform. Codman’s own self-proclaimed significance in the history of the ACS was downplayed or omitted, as was the suggestion that the ACS and its standardizing successor the Joint Commission had their own complex histories of efficiency reform, which could clarify what might be vital particulars about when, where, why, and perhaps most vitally *if* outcome measurement had been lost.

Over the next decades, a series of articles, speeches, and monographs exalted the Codman story. Almost every one of these texts cited Codman’s autobiographical preface as a critical source, and some quoted the text extensively.⁷⁹ Though these works varied in their focus and level of detail, they nearly always reified the narrative of failure with which Codman had repeatedly endowed himself, and most particularly in the autobiography. And they nearly always also encapsulated that failure by describing his emblematic failed reforming moments: his departure from MGH and the case of the inflammatory cartoon.

But rather than acknowledging the curious asymmetry between rhetorical gloss and narrative detail that is so palpable in the autobiography and in Codman’s other works,

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notably his text *Hospital Efficiency*, or even examining Codman's reception in its own time, these texts offered a less complicated retelling of Codman's adventures that often mimicked Codman's own play with the details of his life. Following the preface's creative spirit, some neglected to note that Codman's rift with MGH was not permanent (he was, as he himself notes, later rehired at the MGH).⁸⁰ Others implied that his rehiring came only after Codman's reforming impulses had died back down again, and he had been forced to reintegrate himself into conventional medical life. Others suggested, following another thread of Codman's writing, that World War I had intervened to bring an end to his End Result System.⁸¹ Important details from the autobiography are also omitted in their accounting of the reception to his cartoon, with most texts simply narrating the moment as one purely of censure and rejection.⁸² And though Codman's rhetorical positioning of himself as an outsider was itself mitigated by details he had provided in his text, commentators seemed content to place his outright rejection on the level of fact. Thus we read that Codman's colleagues "scorned his efforts,"⁸³ and learn that this was a direct result, as one author put it, of the "jealously guarded balance of privilege and power within the hospital,"⁸⁴ which made any question of oversight anathema.⁸⁵

Those who wrote these new Codman translations also found in his preface a theme that had escaped comment when it was first published, namely, his self-styled status as a prophet. Bemoaning repeatedly the lack of recognition he had received in his own time, Codman noted, "if the prophet is confident of the value of his service, he may keep his equanimity in spite of the jeers of his contemporaries."⁸⁶ What gave him further

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consolation, he continued, was the knowledge that “although the End Result Idea may not achieve its entire fulfillment for several generations,”⁸⁷ its time would most certainly come. While these passages garnered perhaps understandably little serious attention from his contemporaries, they offered in this new moment the final confirmation that his story and ideas had really been directed to this later generation, who were forging a profession that could finally accommodate Codman’s “clinical truth.” Commentaries poured out, with titles like “Ernest A. Codman, MD (1869–1940), the End Result Idea, and the Product of a Hospital: The Challenge of a Man Ahead of His Time and Perhaps Ours” and “Evaluation of the Care of Patients: Codman Revisited.” One of these observed that Codman had been living “in advance of his time,” even “light years ahead of the thinking and the culture, a reality that he was well aware of and slightly bemused by.”⁸⁸ Another affectionately labeled him a rabble-rouser, whose message of truth had been buried by the power-mad politics of the medical profession out of which it had emerged.⁸⁹ A third bemoaned the fact that Codman had been interred in an anonymous grave in his wife’s family plot (not as he had once planned, under a headstone proclaiming, here lies “Ernest Amory Codman: killed by colleagues”).⁹⁰ And this, as one observed, in the same ominous year when Hitler was “overrunning much of Europe.”⁹¹

Codman’s narrative had caught fire. Originally only in the purview of quality assessment proponents, writings on Codman now came from multiple sources—orthopedists, medical students, medical ethicists, historians, surgeons, policy makers—and found publication in a wide array of journals like *Spine*, *Milbank Quarterly*, *New England Journal of Medicine*, *International Journal of Technology Assessment in Health*

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Care, Journal of Health Politics, and Policy and Law, with Mallon's biography of Codman serving as a capstone.⁹² Often using his autobiographical preface as a handbook, this small flood of articles signaled that the uptake of end result measures would indicate medicine's commitment to enacting the modern, objective, evidence-based change that had always been its proper future. Their subject matter also implied that this could be done without ever having to leave the confines of medicine's own history. There was no need for the intrusion of nonmedical experts, those bioethical and legal "strangers at the bedside" to linger in medicine, critically looking over physicians' shoulders.⁹³ Codman's failure was implicitly appealing: it offered an opportunity for medicine to create itself anew at century's end, to acknowledge its own shortcomings, to divorce itself from its unhappy past, and, finally, to show that it had only to look deep within itself, via Codman, to reform.

Of course, in many circles, Codman was not in need of resurrection, as his name had never really left circulation. Though he was known for his contributions in many different fields,⁹⁴ it was thanks in particular to his remarkable study of the shoulder—the "balloon" of his book—and his contributions to the field of shoulder surgery that Codman was particularly remembered among orthopedists and surgeons throughout the decades between his death and this later period.⁹⁵ Indeed, on the occasion of *The Shoulder*'s second republication, on its fiftieth anniversary in 1984, a new foreword was added, declaring that "although there have been many volumes on the shoulder since Codman's, we all must admit that this monumental piece of work has been the basis and the groundwork from which all other works have evolved."⁹⁶

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Yet, the “resurrection” of Codman still coalesced around the story of Codman’s reforming failure, his absence from the intervening period, and the resulting historical disjuncture that his rejection had irrevocably caused. This narrative was an explicitly disconnected one, in which the reform road not taken had marked the intervening years as missed opportunities, and Codman’s return as a particular kind of catharsis. It brought to light a system that explicitly focused on transparency as a critical outcome of outcome measurement and a story that related the rejection of this system to his authority-hungry peers, either because they considered medicine unable to stand such scrutiny, as Reverby had suggested,⁹⁷ or because they simply refused to be subjected to it. In this process, the late-century return of Codman seemed also to mark a posthumous triumph for his particular brand of literary politicking. Through his ironic self-telling, he had perfectly crafted a place for himself in the story of medicine across the century.

End Results

Given the current emphasis on outcome measurement in health care, it is important to carefully parse the significance of Codman’s End Result System in the late twentieth century. After a close reading of his writing and of all the journal articles praising his personal virtues, there still remains, after all, his “common-sense notion that every hospital should follow every patient it treats, long enough to determine whether or not the treatment has been successful, and then to inquire ‘if not, why not?’ with a view to preventing similar failures in future.” This article has argued that the return of his system

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was tied to Codman's new niche in an antiprofessional historical moment, but does this assessment give enough credit to Codman's system itself? That is, was his "industrial model" truly useful to health care?⁹⁸

Reading further into Codman's preface and other writings, it becomes clear that the End Result System was not a fixed, objective measure that existed easily outside of Codman's persona. Indeed, for Codman, the End Result System was something inherently personal. In the autobiography, he commits his own life history to an end results chart, suggesting that end results as a concept encompassed far more than just medical study, practice, or reform. Furthermore, his preface itself stands as an End Result iteration, conflating in literary terms his own personal failure with the failure of his system. This raises the important possibility that the very concept of efficiency—a term that had spawned its own branch of science—carried a special meaning to Codman, and was in his mind a concept broad enough to accommodate his ironic medical self-telling.⁹⁹ Late-century commentators seemed tacitly to understand this. As one writer put it, Codman's life and his End Result idea were "of a piece,"¹⁰⁰ and his "monomania" for end results extended beyond both the short period he describes in the autobiography and the particulars of his life in medicine.

Perhaps more tellingly, by the narrower and more conventional terms of efficiency in which Codman's system was later read, his End Result System had a much more checkered history of success in its implementation, such that it could not have been an easy model for late-century outcome measurement. Though it had inspired useful texts, including Codman's work on the shoulder and his earlier Registry of Bone Sarcoma, the

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End Result System had not proven a successful protocol for the running of an entire hospital, a fact to which the failure of Codman's own hospital—run as a kind of proof of concept for the wholesale adoption of his principles—clearly attests.¹⁰¹ To Codman's disappointment, one of his central policies, of publishing the results of its surgeries and distributing this information to the general public, did not whet the public's appetite for treatment there. Likewise, other hospitals that adopted Codman's policies wholesale found they were sometimes too complex or cumbersome in their requirements or simply did not accomplish what they were supposed to.¹⁰² Codman implied that the particular disinterest in results among the general public was part of the larger conspiracy of "humbug" his cartoon illustrated, but it is important to note that this played out in much the same way later in the century when, in 1986, the Health Care Financing Administration (HCFA) released what came to be called the "death list," a report on hospital quality based on the outcomes of 10.8 million Medicare patients.¹⁰³

The story of the "Death List" was covered in detail in the *New York Times*,¹⁰⁴ and came to be widely panned as unhelpful and potentially misleading, with its promise of "clinical truth" unfulfilled due to the incredibly complex systems its data were supposed to parse.¹⁰⁵ Medical consumers simply did not seem to care about the report, seeming either privy to these problems already, such that they did not take the HCFA stories as shedding new light on medical practice, or simply unconvinced that outcome measurement could capably give them the information that they needed to know.¹⁰⁶ This underwhelming outcome was widely discussed,¹⁰⁷ with some hypothesizing that consumers might be compelled more by "preferences for and by physicians, tradition,

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convenience and word of mouth—not to mention sheer randomness” than they were by outcome measurement.¹⁰⁸ Whatever the precise reasons, in this case outcome measurement did not translate in either medical or lay circles into effective results.

In a widely cited article written three years after the HCFA data had been released, health policy expert Donald Berwick, who had weighed in on the “Death List,” seemed similarly to take the Codman genre to task, writing, “Whose ends results are we to study? The capacity for vagueness is frightening.”¹⁰⁹ He continued,

We risk holding accountable for end results people who little more determine those results than the seven astronauts of Challenger determined the end results of the shuttle. It is not that physicians are never responsible for outcomes, but rather that we have so little to tell us when it is the doctors, and when it is the systems they work in, that make success and failure. Doctors are people acting in processes. . . .

Everyone recites the myth of physician power; few who study quality on the ground believe it.¹¹⁰

Noting that it is a “special form of arrogance to imply that people of an earlier time were somehow less complex than we of today,”¹¹¹ Berwick called out Codman’s system as too absolute and held Codman culpable for having missed the potential destructive implications of a system of responsibility that did not accommodate process. He also offered an implicit critique of the contemporary scholarly literature that focused so much on the profession as a primary historical subject. The story of physician power, he noted, could not by itself account for medicine’s key problems. The historical and social complexity of such a system as American medicine ought not be reduced to a story of

authority building followed by decades of defensive tactics.

And yet Berwick did not discard the Codman story. Instead, he found in its narrative of medical martyrdom an apt cautionary tale for contemporary medical hubris. “We better honor his memory,” he noted, “if we have the insight to see how we, too, resist the Codmans of today.”¹¹² Like so many other texts, then, Berwick’s narrative moved beyond the End Result System to celebrate Codman’s life or, rather, the life Codman had fashioned: the epic of a righteous, unconventional, rebellious doctor working to reform a resistant establishment.¹¹³ His hero was not Codman the successful reformer or author of a classic orthopedic text, not a Codman whose life could be captured in all of its complexity in the more measured terms of historical analysis, or even Codman the creator of the End Result System. It was instead the Codman self-crafted as a rejected prophet in the preface to *The Shoulder*. It is this icon, with his constant play on the details of his own life in the service of his professional goals, his eccentricity and quixotism, that Berwick finally embraces.

Other key figures in the resurgence of outcome measurement at the end of the twentieth century—Albert Mulley, John Wennberg, Avedis Donabedian among them—did much the same. They often evoked Codman’s End Result, but spent more time actually discussing Codman’s story than his precise ideas. And the systems of outcome measurement ideas they helped install bore little more than a passing resemblance to his system.¹¹⁴ The exact nature of Codman’s system was simply not the point.

And it still isn’t. Codman’s story still resonates today, and commentators continue to summon his spirit when the occasion calls for it. In 2014, amid great fanfare, the then

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president-elect of the ACS spearheaded a project to raise twenty thousand dollars to erect a headstone for Codman. The inscription was a quote of Codman's own: "It may take a hundred years for my ideas to be accepted."¹¹⁵ (See Figure 4.) The accompanying story in the *Boston Globe* was a familiar one. Titled "Honoring a Once-Scorned Voice for Medical Openness," it too recapitulated the story of Codman's resignation, of his cartoon, and of the rejection of his End Result System.¹¹⁶

This rereading of Codman's autobiography sounds important notes about how Codman ought to be read into the history of professionalization and reform in both his own and the late-century period, and not simply or even at all because it raises the possibility that we have misunderstood or underplayed his successes and misread him as a failure. Rather, a close reading of Codman's preface to *The Shoulder* and its late-century recapitulations draws our attention to historical strands of significance that our focus on the conventional elements of medicine's history have made difficult to see. In its movement across time, the preface suggests something of the critical and remarkably enduring power of Codman's kind of aesthetic play with literature, with identity, and with the personal. In doing so, it asks us to expand and flex our sense of how medical identity was constituted in both of these periods, so that we can understand not just how to signify moments like this, but also how to recognize them in the first place, making possible new perspectives on the politics of identity as they interacted with long-standing themes of professional power, clinical practice, and medical effectiveness.

The Codman story also offers legibility to an argument about the significance of the aesthetics of representation more generally, as itself an operative and critical theme, at

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least in the history of medical efficiency and quality assessment, if not in the determination of medical meaning across the twentieth century more generally.¹¹⁷ For in their largely unintentional reproduction of Codman's play with identity, Codman's late-century commentators implicitly replicated not Codman's brand of personal politicking, nor exactly the substance of his claims, but rather the character and quality of his stylized life. Indeed, perhaps in its own time, but certainly in the waning years of the century, what surprises is how essential the qualities of Codman's crafted self turn out to be. It is for the way in which it actually breaks with and begins to move at an aesthetically inclined tangent to the familiar themes of twentieth-century American medical history that the story of *The Shoulder* breaks new ground.

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Figure Legends

Figure 1. Codman's chart of his "life history." Ernest Amory Codman, *The Shoulder, Rupture of the Supraspinatus Tendon and Other Lesions in or about the Subacromial Bursa* (Boston: Thomas Todd Company, 1934), vi.

Figure 2. "The Back Bay Golden Good Ostrich," a cartoon by Codman's friend Philip Hale, unveiled at the Suffolk District Medical Society's "Meeting for the Discussion of Hospital Efficiency" at the Boston Medical Library on January 6, 1915. Ernest Amory Codman, "Preface," in *The Shoulder, Rupture of the Supraspinatus Tendon and Other Lesions in or about the Subacromial Bursa* (Boston: Thomas Todd Company, 1934), xxvi.

Figure 3. Codman's Hot Air Balloon. Ernest Amory Codman, "Epilogue," in *The Shoulder, Rupture of the Supraspinatus Tendon and Other Lesions in or about the Subacromial Bursa* (Boston: Thomas Todd Company, 1934), 29.

Figure 4. Codman's new headstone, dedicated July 2014 by a former Massachusetts General Hospital chief of surgery and president-elect of the American College of Surgeons, Andrew Warshaw. It rests in the family plot of Codman's wife, Katherine Bowditch, at the Mount Auburn Cemetery in Cambridge, Massachusetts. Photo credit: Charles Giorno Photography/American College of Surgeons.

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1. Avedis Donabedian, "The End Results of Health Care: Ernest Codman's Contribution to Quality Assessment and Beyond," *Milbank Quart.* 67 (1989): 233–56, quotation on 233.

2. Perhaps the first article of this genre is P. A. Lembcke, "Evolution of the Medical Audit," *JAMA* 199 (1967): 543–50, quotation on 544–45.

3. John D. Porterfield, "Evaluation of the Care of Patients: Codman Revisited," *Bull. N.Y. Acad. Med.* 52 (1976): 30–38, quotation on 36; Claude H. Organ and Edward Passaro "Ernest A. Codman: The Improper Bostonian," *Bull. Amer. Coll. Surg.* 84 (1999): 16–22.

4. See, e.g., E. A. Codman, *A Study in Hospital Efficiency: As Demonstrated by the Case Report of the First Five Years of a Private Hospital* (1917; repr., Chicago: Joint Commission on Accreditation of Healthcare Organizations, 1996).

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5. Ernest Amory Codman, "Epilogue," in *The Shoulder, Rupture of the Supraspinatus Tendon and Other Lesions in or about the Subacromial Bursa* (Boston: Thomas Todd Company, 1934), 1.

6. Codman, "Preface," in *The Shoulder* (n. 5), xxxviii.

7. Charles Wrege's article on efficiency, which circulated among the medical community, credits Codman, in fact, as having had great influence on current practice. "The Efficient Management of Hospitals: Pioneer Work of Ernest Codman, Robert Dickinson and Frank Gilbreth, 1910–1918," *Proc. Acad. Management Annu. Meeting* (1980): 114–18, cited in Duncan Neuhauser, "Ernest Amory Codman, M.D., and End Results of Care," *Int. J. Technol. Assess. Health Care* 6 (1990): 307–25.

8. Codman, *Hospital Efficiency* (n. 4), 182.

9. Susan Reverby, "Stealing the Golden Eggs: Ernest Amory Codman and the Science and Management of Medicine," *Bull. Hist. Med.* 55 (1981): 156–71; Christopher Crenner, "Organizational Reform and Professional Dissent in the Careers of Richard Cabot and Ernest Amory Codman, 1900–1920," *J. Hist. Med. & Allied Sci.* 56 (2001): 211–37.

10. See, e.g., Donald Pollock, "Physician Autobiography: Narrative and the Social History of Medicine," in *Narrative and the Cultural Construction of Illness and Healing*, ed. Cheryl Mattingly and Linda Garro (Berkeley: University of California Press, 2000), 108–27; see also Steve Sturdy's recent study of J. S. Haldane, "The Meanings of 'Life': Biology and Biography in the Work of J.S. Haldane (1860–1936)," *Trans. Roy. Hist. Soc.* 21 (2011): 171–91.

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11. William Mallon, *Ernest Amory Codman: The End Result of a Life in Medicine* (Philadelphia: WB Saunders, 2000).

12. See Pollock, "Physician Autobiography" (n. 10), 108–9. See, e.g., Franklin Martin, *The Joy of Living, an Autobiography* (Garden City, N.Y.: Doubleday, 1933) and Martin, *Fifty Years of Medicine and Surgery: An Autobiographical Sketch* (Chicago: Surgical Publishing, 1934); Harvey Cushing's biography on William Osler, *The Life of Sir William Osler* (Oxford: Clarendon, 1925); George Crile, *George Crile, an Autobiography* (Philadelphia: Lippincott, 1947).

13. Codman, *The Shoulder* (n. 5), viii.

14. See, e.g., Joel D. Howell, *Technology in the Hospital: Transforming Patient Care in the Early Twentieth Century* (Baltimore: Johns Hopkins University Press, 1996), 66 and 247. Howell (278n97) wryly notes that "perhaps the best source on Codman is Codman himself, in the autobiographical preface and prologue to *The Shoulder*."

15. On the question and definition of medical aesthetics, see John Harley Warner, "The Aesthetic Grounding of Modern Medicine," *Bull. Hist. Med.* 88 (2014): 1–47.

16. Codman, *The Shoulder* (n. 5), vii.

17. *Ibid.*, xii.

18. *Ibid.*, xii.

19. Cited in Donabedian, "End Results of Health Care" (n. 1), 238; Organ and Passaro, "Ernest A. Codman" (n. 3), 19; William W. McLendon, "Ernest A. Codman, MD (1869–1940), the End Result Idea, and the Product of a Hospital: The Challenge of a Man Ahead of His Time and Perhaps Ours," *Arch. Pathol. Lab. Med.* 114 (1990): 1101–

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4, quotation on 1101; John Homans, "Obituary: Ernest Amory Codman, 1869–1940," *New Engl. J. Med.* 247 (1941): 296–99, quotation on 297; Virginia Sharpe, "Behind Closed Doors: Accountability and Responsibility in Patient Care," *J. Med. Philos.* 25 (2000): 28–47, quotation on 33–34; Jill Feasley, ed., *Health Outcomes for Older People: Questions for the Coming Decade* (Washington, D.C.: National Academies Press, 1996), vi; Andrew L. Warshaw, American College of Surgeons Presidential Address, October 26, 2014, <https://www.youtube.com/watch?v=UbfA7tu8rkY> (accessed January 17, 2015); Serge Kaska and James Weinstein, "Ernest Amory Codman, 1869–1940: A Pioneer of Evidence-Based Medicine: The End Result Idea" *Spine* 23 (1998): 629–33, quotation on 630; Reverby, "Stealing the Golden Eggs" (n. 9), 158; Harold DeMonaco, "Guidelines, Pathways, and the End Result," *Crit. Care Med.* 28 (2000): 889–90, quotation on 889; Israel Diamond, "An Old Look at Quality Assurance," *Ann. Clin. Lab. Sci.* 16 (1986): 255–58, quotation on 257.

20. Readers interested in the precise chronology of this period of Codman's life should see Mallon, *Ernest Amory Codman* (n. 11).

21. Codman, *The Shoulder* (n. 5), xiii.

22. *Ibid.*, xii.

23. See, e.g., Donabedian, "End Results of Health Care" (n. 1), 235–38; Organ and Passaro, "Ernest A. Codman" (n. 3), 20–21; McLendon, "Ernest A. Codman" (n. 19), 1102; see also the historical work of Reverby, "Stealing the Golden Eggs" (n. 9), 158 and Crenner, "Organizational Reform" (n. 9), 214–17.

24. Codman, *Hospital Efficiency* (n. 4), 151.

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25. Ibid.
26. Codman, *The Shoulder* (n. 5), xx–xxi. Codman seems to offer a different view of the impetus for this resignation in his *Hospital Efficiency* (n. 4), 178–80.
27. Codman, *The Shoulder* (n. 5), xi.
28. Ibid., viii.
29. Ibid., xxi.
30. Codman, *Hospital Efficiency* (n. 4), 176–201.
31. Codman, *The Shoulder* (n. 5), xxix–xxx.
32. Ibid., xxvii–xxviii.
33. Ibid., xxv.
34. Unsigned letter to Codman, December 23, 1917, Ernest Amory Codman Papers, 1849–1981, B MS c60, Harvard Medical Library, Francis A. Countway Library of Medicine, Boston, Mass., box 5, folder 91.
35. Ibid.
36. Codman Papers, box 2, folder 22.
37. See Crenner, “Organizational Reform” (n. 9).
38. Codman, *The Shoulder* (n. 5), xx. For more specifics on the substantive disagreements Codman had with Cabot, as well as the tenor of his public exchanges with Codman, see *Hospital Efficiency* (n. 4), 159–61 in the section “A Few of the Things on Which I Do Not Agree with Richard Cabot.”
39. Codman, *The Shoulder* (n. 5), xx.

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40. E. A. Codman, "Uniformity in Hospital Morbidity Reports," *Boston Med. Surg. J.* 177 (1917): 279–82. See also the discussion of his article, 282–83, and of the following article, John Bowman, "The Standardization of Hospitals," *Boston Med. & Surg. J.* 177 (1917): 283–85.

41. "The Massachusetts Medical Society Meeting of the Section of Hospital Administration, June 12, 1917," *Boston Med. Surg. J.* 177 (1917): 275–78, quotation on 275.

42. Reverby, "Stealing the Golden Eggs" (n. 9), 166–67.

43. Letter from Lincoln Davis to Ernest Codman, December 24, 1933, Codman Papers, box 5, folder 100.

44. Codman, *The Shoulder* (n. 5), xxiv.

45. *Ibid.*, xx. In fact, historians have largely cleaved Codman's radical call for outcome measurement from the American College of Surgeons' more conservative approach. See Rosemary Stevens, *In Sickness and in Wealth: American Hospitals in the Twentieth Century* (1989; repr., Baltimore: Johns Hopkins University Press, 1999), 77–78.

46. Codman, *The Shoulder* (n. 5), xxvi.

47. A lovely example comes from a letter from Thomas Todd, Thomas Todd Printers, to Ernest Codman concerning the possible reprinting of *The Shoulder*, November 4, 1935. This ends with the line, "One more question: how many pheasants have you brought down this fall?" Codman Papers, box 5, folder 101.

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48. See Sumner M. Roberts, “Book Review: The Shoulder,” clipping, Codman Papers, box 5, folder 100. Others who reviewed or drew on Codman’s *The Shoulder* were also quite laudatory. See, e.g., C. H. Gray, “Rupture of the Supraspinatus Tendon,” *Lancet* 231 (1938): 483–87.

49. Homans, “Obituary” (n. 19), 299.

50. Ibid., 298. See also Channing Simmons’s 1941 tribute to Codman at the 1941 meeting of the American Surgical Association, similarly describing the ubiquity of Codman’s work by the time of his death. Referenced in “The Eleanor K. Grimm Notebooks,” Archives of the American College of Surgeons, box 3, vol. 16, reel F2, 10–11.

51. Codman describes in the preface that he had even consulted two “friends who were distinguished alienists,” to make sure he was not the victim of a mental pathology. *The Shoulder* (n. 5), xxii.

52. Stevens, *In Sickness and in Wealth* (n. 45), 76.

53. Howell, *Technology in the Hospital* (n. 14), 66.

54. “A Book on Diseases and Injuries of the Shoulder” to Fellows of the American College of Surgeons, Codman Papers, box 5, folder 100.

55. Codman, “Epilogue” (n. 5), 16.

56. Ibid., 13–16. This discussion also appears in his correspondence with his publisher, Thomas Todd. See Codman Papers, box 5, folder 101.

57. Codman, “Epilogue” (n. 5), 20.

58. See, e.g., Codman, *Hospital Efficiency* (n. 4), 159–60.

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59. Frederic Washburn, *The Massachusetts General Hospital: Its Development, 1900–1935* (Boston, 1939), 433, as cited in Crenner, “Organizational Reform” (n. 9), 218–219, on 219n23.

60. Codman, *The Shoulder* (n. 5), v.

61. Indeed, Codman suggests as much with his explicit references to Cervantes’s *Don Quixote*, a classic work of irony. See *The Shoulder* (n. 5). xxxvii.

62. Codman, *The Shoulder* (n. 5), v.

63. *Ibid.*, xxi.

64. See, e.g., Thomas McKeown, *The Role of Medicine: Dream, Mirage, or Nemesis?* (London: Nuffield Provincial Hospitals Trust, 1976); Thomas Szasz, *The Myth of Mental Illness: Foundations of a Theory of Personal Conduct* (New York: Harper, 1974); Ivan Illich, *Medical Nemesis: The Expropriation of Health* (London: Marion Boyars, 1975).

65. Eliot Freidson, *Professions of Medicine: A Study of the Sociology of Applied Knowledge* (New York: Dodd Mead, 1970), 371. Paul Starr historically builds out a similar thesis in his *The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry* (New York: Basic Books, 1982). See also Gary Belkin’s evocative summary of Starr in “The Technocratic Wish: Making Sense and Finding Power in the ‘Managed’ Medical Marketplace,” *J. Health Polit. Policy Law* 22, no. 2 (1997): 509–32, esp. 509.

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66. See Rosemary Stevens, “Public Roles for the Medical Profession in the United States: Beyond Theories of Decline and Fall,” *Milbank Quart.* 79 (2001): 327–53, esp. 334–35.

67. John Harley Warner, “The Humanising Power of Medical History: Responses to Biomedicine in the 20th Century United States,” *Med. Human.* 37 (2011): 91–96.

68. See, e.g., George Annas’s *The Rights of Hospital Patients* (New York: Discus Books, 1975). For narratives about the decline and fall of the medical profession, see also David Rothman, *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making* (New York: Basic Books, 1991); M. L. T. Stevens, *Bioethics in America: Origins and Cultural Politics* (Baltimore: Johns Hopkins University Press, 2000); Mark Schlesinger, “A Loss of Faith: The Sources of Reduced Political Legitimacy for the American Medical Profession,” *Milbank Quart.* 80 (2002): 185–235; Stevens, “Public Roles” (n. 66); Stefan Timmermans and Hyeyoung Oh, “The Continued Social Transformation of the Medical Profession,” *J. Health Soc. Behav.* 51 (2010): S94–106; Donald Light and Sol Levine, “The Changing Character of the Medical Profession: A Theoretical Overview,” *Milbank Quart.* 66, no. S2 (1988): 10–32.

69. Warner, “Humanising Power of Medical History” (n. 67), 95.

70. Reverby, “Stealing the Golden Eggs” (n. 9), 171.

71. See Jacques Ellul, *The Technological Society* (New York: Knopf, 1964); Lewis Mumford, *Technics and Civilization* (1934; repr., Chicago: University of Chicago Press, 2010); David Noble, *America by Design: Science, Technology and the Rise of Corporate Capitalism* (New York: Knopf, 1977).

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72. Reverby, “Stealing the Golden Eggs” (n. 9), 171. See also Donabedian, “End Results of Health Care” (n. 1), 245.

73. *The Shoulder* continues to be well known. See, e.g., Charles A. Rockwood, Jr. and Frederick A. Matsen III, eds., *The Shoulder* (1990; repr., Philadelphia: Elsevier Health Sciences, 2009); Mark Miller and Stephen Thompson, eds., *DeLee & Drez’s Orthopaedic Sports Medicine: Principles and Practices* (1994; repr., Philadelphia: Elsevier, 2015); Thomas Gill and Richard Hawkins, *Complications of Shoulder Surgery: Treatment and Prevention* (Philadelphia: Lippincott, 2006); Carter Rowe’s *The Shoulder: Evaluation and Treatment* (London: Churchill Livingstone, 1987) was dedicated to Codman. See also Duncan Neuhauser, “Introduction,” in Codman, *Hospital Efficiency* (n. 4), 28–29.

74. Albert G. Mulley, “E.A. Codman and the End Results Idea: A Commentary,” *Milbank Quart.* 67 (1989): 257–61, esp. 260.

75. Donabedian, “End Results of Health Care” (n. 1).

76. Kaska and Weinstein, “Ernest Amory Codman” (n. 19), 629.

77. Neuhauser, “Ernest Amory Codman” (n. 7), 318. See also Mary Nadolny, “The Patient Care Audit,” *Hosp. Topics* 57 (1979): 30–33, esp. 30.

78. Tom Christoffel, “Medical Care Evaluation: An Old New Idea,” *J. Med. Educ.* 51 (1976): 83–88, 86.

79. Kaska and Weinstein, “Ernest Amory Codman” (n. 19); Organ and Passaro, “Ernest A. Codman” (n. 3); Donabedian, “End Results of Health Care” (n. 1); Diamond, “Old Look” (n. 19); Neuhauser, “Ernest Amory Codman” (n. 7); Warshaw, American College of Surgeons Presidential Address (n. 19).

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80. Organ and Passaro, “Ernest A. Codman” (n. 3), 21; Sharpe, “Behind Closed Doors” (n. 19), 37.

81. Codman, *The Shoulder* (n. 5), xxx; Kaska and Weinstein, “Ernest Amory Codman” (n. 19), 632.

82. Organ and Passaro, “Ernest A. Codman” (n. 3), 21; Kaska and Weinstein, “Ernest Amory Codman” (n. 19), 632; Neuhauser, “Ernest Amory Codman” (n. 7), 316–17; Donald Berwick, “E.A. Codman and the Rhetoric of Battle: A Commentary,” *Milbank Quart.* 67 (1989): 262–67, esp. 263.

83. Neuhauser, “Ernest Amory Codman” (n. 7), 307.

84. Donabedian, “End Results of Health Care” (n. 1), 245.

85. See also, e.g., Bernard Bloom, “Does It Work? The Outcomes of Medical Interventions,” *Int. J. Technol. Assess. Health Care* 6 (1990): 326–32, quotation on 329; Christoffel, “Medical Care Evaluation” (n. 78), 87; William Mallon, “E. Amory Codman, Surgeon of the 1990s,” *J. Shoulder & Elbow Surg.* 7 (1998): 529–36, 534; Timothy Fabian, “Evidence-Based Medicine in Trauma Care: Whither Goest Thou?,” *J. Trauma-Injury Infection Crit. Care* 47 (1999): 225–32, http://journals.lww.com/jtrauma/Fulltext/1999/08000/Evidence_Based_Medicine_in_Trauma_Care__Whither.1.aspx (accessed January 18, 2015).

86. Codman, *The Shoulder* (n. 5), xxxviii.

87. Ibid.

88. Organ and Passaro, “Ernest A. Codman” (n. 3), 22.

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89. Ibid., 17; Dennis S. O’Leary, “Foreword,” in Codman, *Hospital Efficiency* (n. 4), v–viii.

90. Codman, in a letter to Edward Martin, quoted in Reverby, “Stealing the Golden Eggs” (n. 9), 170; repeated in Kaska and Weinstein, “Ernest Amory Codman” (n. 19), 632n16.

91. William Mallon, “E.A. Codman: Codman Considered Father of Evidence-Based Medicine,” *Amer. Acad. Orthop. Surg. Now* (2007): 58–60, quotation on 58.

92. Mallon, *Ernest Amory Codman* (n. 11).

93. Rothman, *Strangers at the Bedside* (n. 68); Stevens, *Bioethics in America* (n. 68).

94. See, e.g., Mallon, *Ernest Amory Codman* (n. 11), which documents seven fields to which Codman contributed.

95. See Neuhauser, “Introduction” (n. 73), 28–29. See also J. G. Bonnin, “Review: *The Shoulder*. By E.A. Codman. Reprint of the 1934 edition. Brooklyn: G. Miller & Company, 1965,” *J. Bone & Joint Surg.* 49B, no. 1 (1967): 206. *The Shoulder* has in fact been republished three times, in 1965, 1984, and 1991. The 1984 version of *The Shoulder* is available in its entirety online. See <http://www.shoulderdoc.co.uk/article.asp?section=609> (accessed January 3, 2015).

96. Anthony DePalma and E. A. Codman, *The Shoulder: Rupture of the Supraspinatus Tendon and Other Lesions on or about the Subacromial Bursa* (1984), <http://www.shoulderdoc.co.uk/article.asp?article=906§ion=609> (accessed February 15, 2015).

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97. Reverby, “Stealing the Golden Eggs” (n. 9), 170.
98. Ibid., 171. Reverby also relates Codman to the work of figures like Archie Cochrane, who had set the tone of public policy conversations with his aptly named 1972 book *Effectiveness and Efficiency: Random Reflections on Health Services* (London: Nuffield Provincial Hospitals Trust, 1972).
99. This been pointed out in other settings, but aside from Susan M. Reverby, *Ordered to Care: The Dilemma of American Nursing, 1850–1945* (Cambridge: Cambridge University Press, 1987) by which points toward a more expansive reading of efficiency, and Howell’s *Technology in the Hospital* (n. 14), which also more rigorously takes efficiency up, rarely within medical contexts. Outside of the history of medicine, see, e.g., Samuel Haber, *Efficiency and Uplift: Scientific Management in the Progressive Era, 1890–1920* (Chicago: University of Chicago Press, 1964); Anson Rabinbach, *The Human Motor: Energy, Fatigue and the Origins of Modernity* (Berkeley: University of California Press, 1992).
100. Neuhauser, “Introduction” (n. 73), 33.
101. Codman devotes two sections to this in *Hospital Efficiency* (n. 4), 130–35, “Has This Hospital Been a Success?” and “Why This Hospital Has Not Been a Financial Success.”
102. See, e.g., Codman’s list of “objections to use of chart” in *Hospital Efficiency* (n. 4), 122. These reflect real complaints regarding his system; see also, e.g., S. S. Goldwater to Codman, who, in voicing a concern over a particular follow-up aspect of the End Result System employed at his own New York Hospital, noted, “Efficiency

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tests . . . are always of some value [but] sometimes it is necessary to put the measuring rod on the testing method itself.” Letter, December 10, 1913, Codman Papers, box 2, folder 26.

103. Donald Berwick and D. L. Wald, “Hospital Leaders’ Opinions of the HCFA Mortality Data,” *Journal of the American Medical Association* 263 (1990): 247–49.

104. Joel Brinkley broke the story in early March 1986 in his article “U.S. Distributing Lists of Hospitals with Unusual Death Rates,” *New York Times*, March 3, 1986. A week later, the data were released, and Brinkley’s article, “U.S. Releasing Lists of Hospitals with Abnormal Mortality Rates,” ran in the *New York Times* on March 12, 1986. See also Brinkley, “Experts Question Program to Cut Hospital Deaths,” *New York Times*, August 5, 1984.

105. Berwick and Wald, “Hospital Leaders’ Opinions of the HCFA Mortality Data” (n. 103), 247.

106. Brinkley explains the shortcomings of the data in his “U.S. Releasing Lists” (n. 104).

107. See E. Schneider and T. Lieberman, “Publicly Disclosed Information about the Quality of Health Care: Response of the US Public,” *Qual. Health Care* 10 (2001): 96–103; Jesse Green, “Problems in the Use of Outcome Statistics to Compare Health Care Providers,” *Brooklyn Law Rev.* 58 (1992–93): 55–73, esp. 55–58; B. C. Vladeck, E. J. Goodwin, L. P. Myers, and M. Sinisi, “Consumers and Hospital Use: The HCFA ‘Death List,’” *Health Aff.* 7 (1988): 122–25; S. T. Mennemeyer, M. A. Morrissey, and L. Z. Howard, “Death and Reputation: How Consumers Acted upon HCFA Mortality

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Information,” *Inquiry* 34 (1997): 117–28. See also E. A. McGlynn, “Six Challenges in Measuring the Quality of Health Care,” *Health Aff.* 16 (1997): 7–21; S. Edgman-Levitan and P. Cleary, “What Information Do Consumers Want and Need?,” *Health Aff.* 15 (1996): 42–56; J. H. Hibbard and J. J. Jewett, “What Type of Quality Information Do Consumers Want in a Health Care Report Card?,” *Med. Care Res. Rev.* 53 (1996): 28–47.

108. Vladeck et al., “Consumers and Hospital Use” (n. 107), 125.

109. Berwick, “E.A. Codman” (n. 82), 264.

110. *Ibid.*, 264–65.

111. *Ibid.*, 263.

112. *Ibid.*, 263.

113. See also Donald Berwick, “Measuring Surgical Outcomes for Improvement: Was Codman Wrong?,” *JAMA* 313 (2015): 469–70. My thanks to an anonymous reviewer for pointing this out.

114. Though he does not fully acknowledge the nature of efficiency in Codman’s writing and context, Belkin argues that the goals and trajectories of Codman’s End Result System and outcome measurement as they were envisioned by these figures at century’s end were not finally the same. See Belkin, “Technocratic Wish” (n. 65), 521–26.

115. Liz Kowalczyk, “Honoring a Once-Scorned Voice for Medical Openness,” *Boston Globe*, July 21, 2014, <http://www.bostonglobe.com/lifestyle/health-wellness/2014/07/20/mass-general-raises-money-for-memorial-for-ground-breaking-surgeon-once-shunned/40e5gbGJxCdbfj1UPVIdUK/story.html> (accessed January 10,

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2015). I am grateful to one of the anonymous reviewers of this article for pointing this out.

116. Ibid.

117. See, e.g., Caitjan Gainty, “‘Going After the High-Brows’: Frank Gilbreth and the Surgical Subject, 1912–1917,” *Representations* 118 (2012): 1–27.